

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A printing apparatus comprising:
a detection means-section that is capable of moving and that is for detecting a medium to be printed; and
a transporting section carrying means for transporting ~~carrying~~ the medium to be printed in a direction that intersects a movement direction of said detection ~~means-section~~;
said printing apparatus
causing said detection ~~means-section~~ to be positioned on one side in said movement direction;
causing said ~~carrying means-transporting section~~ to carry/transport said medium to be printed in a predetermined direction up to a detection position where said detection ~~means-section~~ detects said medium to be printed; and
when an upper end, among an upper right end and an upper left end of said medium to be printed, that is on a side opposite from a side where said detection ~~means-section~~ is positioned is leading by at least a set amount at said detection position, causing said detection ~~means-section~~ to be positioned on the other side that is opposite from the one side in said movement direction, then causing said ~~carrying means-transporting section~~ to carry-transport said medium to be printed from said detection position in a direction opposite from said predetermined direction, then causing said medium to be printed to be carried in said predetermined direction up to the detection position where said detection ~~means-section~~ detects

said medium to be printed, and then causing said medium to be printed to be carried by a predetermined amount in said predetermined direction from said detection position.

2. (currently amended): A printing apparatus according to claim 1,
wherein when an upper end, among the upper right end and the upper left end of said medium to be printed, that is on the side where said detection ~~means~~section is positioned is leading at said detection position, said medium to be printed is carried by said ~~carrying~~
~~means~~transporting section in said predetermined direction from said detection position by said predetermined amount.

3. (currently amended): A printing apparatus according to claim 2,
wherein when the upper end, among the upper right end and the upper left end of said medium to be printed, that is on the side opposite from the side where said detection ~~means~~
section is positioned is leading by less than said set amount at said detection position, said medium to be printed is carried by said ~~carrying~~meanstransporting section in said predetermined direction from said detection position by said predetermined amount.

4. (currently amended): A printing apparatus according to claim 1, comprising:
a print head for printing on said medium to be printed by ejecting ink as said print head moves in a main-scanning direction that intersects the ~~carrying~~transporting direction in which said medium to be printed is carried.

5. (currently amended): A printing apparatus according to claim 4,

wherein said detection ~~means~~section is provided together with said print head in/on a moving member for moving in said main-scanning direction.

6. (currently amended): A printing apparatus according to claim 1,

wherein the upper end, among the upper right end and the upper left end of said medium to be printed, that is leading at said detection position is found by detecting whether or not said medium to be printed is present by moving said detection ~~means~~section from the one side to the other side in said movement direction after ~~carrying-transporting~~ said medium to be printed in said predetermined direction up to said detection position where said detection ~~means~~section positioned on the one side in said movement direction detects said medium to be printed.

7. (currently amended): A printing apparatus according to claim 6,

wherein it is made difficult for said detection ~~means~~section to detect said medium to be printed when said detection ~~means~~section is moved from the one side to the other side in said movement direction.

8. (currently amended): A printing apparatus according to claim 7,

wherein, in the process of moving said detection ~~means~~section from the one side to the other side in said movement direction,

if said detection ~~means~~section does not detect said medium to be printed, then it is assumed that the upper end, among the upper right end and the upper left end of said medium to be printed, that is on said one side in said movement direction of said detection ~~means~~section is leading at said detection position, or that the upper end, among

the upper right end and the upper left end of said medium to be printed, that is on said other side in said movement direction of said detection ~~means~~section is leading by less than the set amount, and

if said detection ~~means~~section detects said medium to be printed, then it is assumed that the upper end, among the upper right end and the upper left end of said medium to be printed, that is on said other side in said movement direction of said detection ~~means~~section is leading by at least the set amount.

9. (currently amended): A printing apparatus according to claim 1,
wherein said detection ~~means~~section has a light-emitting member for emitting light and a light-receiving member for receiving the light that is emitted by said light-emitting member, and detects said medium to be printed based on an output value of said light-receiving member.
10. (original): A printing apparatus according to claim 3,
wherein said print head performs printing with respect to an entire surface of said medium to be printed.
11. (currently amended): A printing apparatus comprising:
a detection means-section that is capable of moving and that is for detecting a medium to be printed; and
~~carrying means~~a transporting section for ~~carrying-transporting~~ the medium to be printed in a direction that intersects a movement direction of said detection ~~means~~section;

said printing apparatus

causing said detection ~~means~~section to be positioned on one side in said movement direction;

causing said ~~carrying means~~transporting section to ~~carry~~transport said medium to be printed in a predetermined direction up to a detection position where said detection ~~means~~section detects said medium to be printed;

when an upper end, among an upper right end and an upper left end of said medium to be printed, that is on a side where said detection ~~means~~section is positioned is leading at said detection position, causing said medium to be printed to be carried by said ~~carrying means~~transporting section in said predetermined direction from said detection position by a predetermined amount;

when an upper end, among the upper right end and the upper left end of said medium to be printed, that is on a side opposite from the side where said detection ~~means~~section is positioned is leading by at least a set amount at said detection position, causing said detection ~~means~~section to be positioned on the other side that is opposite from the one side in said movement direction, then causing said ~~carrying means~~transporting section to ~~carry~~transport said medium to be printed from said detection position in a direction opposite from said predetermined direction, then causing said medium to be printed to be carried in said predetermined direction up to the detection position where said detection ~~means~~section detects said medium to be printed, and then causing said medium to be printed to be carried by said predetermined amount in said predetermined direction from said detection position;

when the upper end, among the upper right end and the upper left end of said medium to be printed, that is on the side opposite from the side where said detection ~~means~~

section is positioned is leading by less than said set amount at said detection position, causing said medium to be printed to be carried by said ~~carrying means~~transporting section in said predetermined direction from said detection position by said predetermined amount;

printing on said medium to be printed by causing a print head to eject ink as said print head moves in a main-scanning direction that intersects the ~~carrying-transporting~~ direction in which said medium to be printed is carried;

being provided with said detection ~~means~~section and said print head both in/on a moving member for moving in said main-scanning direction;

finding the upper end, among the upper right end and the upper left end of said medium to be printed, that is leading at said detection position by detecting whether or not said medium to be printed is present by moving said detection ~~means~~section from the one side to the other side in said movement direction after ~~carrying-transporting~~ said medium to be printed in said predetermined direction up to said detection position where said detection ~~means~~section positioned on the one side in said movement direction detects said medium to be printed;

when said detection ~~means~~section is moved from the one side to the other side in said movement direction, making it difficult for said detection ~~means~~section to detect said medium to be printed so that

if said detection ~~means~~section does not detect said medium to be printed, then it is assumed that the upper end, among the upper right end and the upper left end of said medium to be printed, that is on said one side in said movement direction of said detection ~~means~~section is leading at said detection position, or that the upper end, among the upper right end and the upper left end of said medium to be printed, that is on said

other side in said movement direction of said detection ~~means~~section is leading by less than the set amount, and

if said detection ~~means~~section detects said medium to be printed, then it is assumed that the upper end, among the upper right end and the upper left end of said medium to be printed, that is on said other side in said movement direction of said detection ~~means~~section is leading by at least the set amount; and

performing printing with respect to an entire surface of said medium to be printed.

12. (currently amended): A printing method for a printing apparatus provided with a sensor that is capable of moving and that is for detecting a medium to be printed, and a ~~carry~~transport roller for ~~carrying~~transporting the medium to be printed in a direction that intersects a movement direction of said sensor, said printing method comprising:

a step of causing said sensor to be positioned on one side in said movement direction;

a step of causing said ~~carry~~transport roller to ~~carry~~transport said medium to be printed in a predetermined direction up to a detection position where said sensor detects said medium to be printed; and

a step of, when an upper end, among an upper right end and an upper left end of said medium to be printed, that is on a side opposite from a side where said sensor is positioned is leading by at least a set amount at said detection position, causing said sensor to be positioned on the other side that is opposite from the one side in said movement direction, then causing said ~~carry~~transport roller to ~~carry~~transport said medium to be printed from said detection position in a direction opposite from said predetermined direction, then causing said medium to be printed

to be carried in said predetermined direction up to the detection position where said sensor detects said medium to be printed, and then causing said medium to be printed to be carried by a predetermined amount in said predetermined direction from said detection position.

13. (currently amended): A computer readable storage medium which stores program instructions for causing a printing apparatus, provided with a detection means-section that is capable of moving and that is for detecting a medium to be printed; and carrying-meansa transporting section for carrying-transporting the medium to be printed in a direction that intersects a movement direction of said detection means-section, to achieve:

a function of causing said detection means-section to be positioned on one side in said movement direction;

a function of causing said carrying-meanstransporting section to carry-transport said medium to be printed in a predetermined direction up to a detection position where said detection means-section detects said medium to be printed; and

a function of, when an upper end, among an upper right end and an upper left end of said medium to be printed, that is on a side opposite from a side where said detection means-section is positioned is leading by at least a set amount at said detection position, causing said detection means-section to be positioned on the other side that is opposite from the one side in said movement direction, then causing said carrying-meanstransporting section to carry-transport said medium to be printed from said detection position in a direction opposite from said predetermined direction, then causing said medium to be printed to be carried in said predetermined direction up to the detection position where said detection means-section detects

said medium to be printed, and then causing said medium to be printed to be carried by a predetermined amount in said predetermined direction from said detection position.

14. (currently amended): A computer system comprising:

a printing apparatus provided with a detection means-section that is capable of moving and that is for detecting a medium to be printed, and ~~carrying means~~ a transporting section for ~~carrying-transporting~~ the medium to be printed in a direction that intersects a movement direction of said detection ~~means-section~~; and

a main computer unit that is connected to said printing apparatus;
said computer system

causing said detection ~~means-section~~ to be positioned on one side in said movement direction;

causing said ~~carrying means~~ transporting section to ~~carry-transport~~ said medium to be printed in a predetermined direction up to a detection position where said detection ~~means-section~~ detects said medium to be printed; and

when an upper end, among an upper right end and an upper left end of said medium to be printed, that is on a side opposite from a side where said detection ~~means-section~~ is positioned is leading by at least a set amount at said detection position, causing said detection ~~means-section~~ to be positioned on the other side that is opposite from the one side in said movement direction, then causing said ~~carrying means~~ transporting section to ~~carry-transport~~ said medium to be printed from said detection position in a direction opposite from said predetermined direction, then causing said medium to be printed to be carried in said predetermined direction up to the detection position where said detection ~~means-section~~ detects

said medium to be printed, and then causing said medium to be printed to be carried by a predetermined amount in said predetermined direction from said detection position.

15. (currently amended): A printing apparatus comprising:

a sensor that is capable of moving and that is for detecting a medium to be printed; and

a ~~carry-transport~~ roller for ~~carry-transporting~~ the medium to be printed in a direction that intersects a movement direction of said sensor;

said printing apparatus

causing said sensor to be positioned on one side in said movement direction;

causing said ~~carry-transport~~ roller to ~~carry-transport~~ said medium to be printed in a predetermined direction up to a detection position where said sensor detects said medium to be printed; and

when an upper end, among an upper right end and an upper left end of said medium to be printed, that is on a side opposite from a side where said sensor is positioned is leading by at least a set amount at said detection position, causing said sensor to be positioned on the other side that is opposite from the one side in said movement direction, then causing said ~~carry-transport~~ roller to ~~carry-transport~~ said medium to be printed from said detection position in a direction opposite from said predetermined direction, then causing said medium to be printed to be carried in said predetermined direction up to the detection position where said sensor detects said medium to be printed, and then causing said medium to be printed to be carried by a predetermined amount in said predetermined direction from said detection position.